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Compensation, Employment Security, and the Economics of Public-Sector Labor Law

Matthew Dimick
University at Buffalo School of Law

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INTRODUCTION

TUMULTUOUS protests over the elimination or curtailment of collective-bargaining rights in Ohio, Wisconsin, and other battleground states have triggered an enormous discussion over public-sector labor unions and labor law. The compensation of public employees is a key part of this debate, which has tended to focus on the monetary costs of public employee compensation, such as wages, salary, and health and pension benefits. These debates have produced widely diverging estimates of just how much—or how little—the compensation of employees in the public sector departs from that of their counterparts in the private sector.[1]

Despite the great furor over public-sector worker compensation, the debate leaves unasked, and unanswered, many important questions. For instance, the legislation aimed at curtailing collective bargaining assumes that public-sector unions are the source of public-sector labor costs.[2] Yet the public-private compensation comparisons have tended not to make distinctions among public-sector workers, the national majority of whom in fact do not belong to labor unions.[3] Legislation aimed at curtailing public-sector unionism will do little if the alleged costs of public-worker compensation lie elsewhere.[4] The debate has also tended to emphasize the overall magnitude of public-sector compensation, without more closely analyzing the specific sources of these costs and their relative contributions. Indeed, prior to the Ohio and Wisconsin political battles, more longstanding discussions on public-sector workers, and especially public-

* Associate Professor, SUNY Buffalo Law School, State University of New York. I wish to thank the editors of the Toledo Law Review for the invitation to speak at the symposium on public-sector labor law and for their diligent help in editing the article.

1. *Compare* JEFFREY KEEFE, ECON. POLICY INST., DEBUNKING THE MYTH OF THE OVERCOMPENSATED PUBLIC EMPLOYEE: THE EVIDENCE 1 (2010), *available at* http://www.epi.org/page/-/pdf/bp276.pdf (finding that public employees are paid on average lower than comparable private-sector employees), *with* Andrew G. Biggs & Jason Richwine, *Those Underpaid Government Workers*, AM. SPECTATOR, Sept. 2010, at 28, *available at* http://spectator.org/archives/2010/09/24/those-underpaid-gothose-underp. (arguing that public employees enjoy higher compensation on average than comparable private sector employees).

2. *See infra* Section II.B.4.

3. *See infra* Section II.A.1.

4. This is not to say that labor unions are not a factor in public sector costs, but only to point out the lack of clear reasoning in the debate.

sector teachers, drew more focused attention on the costs of *job security*. Once again, a major overhaul of collective bargaining legislation seems a crude tool to address cost concerns if those costs are specific and can be addressed with finer-tuned instruments.

In an attempt to bring more precision into the debate over public worker compensation, this contribution seeks to generate some theory about how we should expect labor unions to affect public-sector compensation as compared to the private sector. At the heart of the analysis lies a model of collective bargaining that highlights *the tradeoff between wage compensation and employment security*. Based on this model, I find compelling reasons why compensation in the public sector might be *lower* than in the private sector, even with divergent proportions of unionization. Indeed, allegations of excessive public-sector pay, such as those made by Andrew Biggs and Jason Richwine, argue that the higher rate of unionization among public-sector workers (particularly at the state and local level) is a key reason why we should expect public-sector compensation to outstrip compensation in the private sector.[5] However, as the model developed in this article demonstrates, once the risk preferences of workers and the peculiarities of public-sector production are made an explicit part of the analysis, the otherwise intuitive assumption that unionization would lead to excessive levels of compensation in the public sector is no longer compelling.

Thus, the argument developed in this article conforms with the results of those researchers who consistently find public-sector wages to be below those of their private-sector counterparts.[6] However, the argument I make is not all good news for proponents of public-sector unions and workers. Indeed, some of the very same factors that lower wages in the public sector—namely workers' preferences over risk and employment security—also impose their own much

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5. Biggs & Richwine, *supra* note 1. Responding to claims of lower pay in the public sector, the authors write:

> This conclusion does not survive scrutiny. For one thing, state and local employees are five times more likely to be covered by union contracts than private sector employees. Since union members predictably receive higher pay than non-union members, policies to allow collective bargaining by government employees are tantamount to decisions to raise pay. While some analysts would have you believe that state and local employees are paid just like private sector workers, the truth is that they are paid more like unionized private sector workers, which is a different kettle of fish.

Id.

6. *See generally, e.g.*, Dale Belman & John S. Heywood, *State and Local Government Wage Differentials: An Interstate Analysis*, 16 J. LAB. RES. 187 (1995); George J. Borjas, *The Wage Structures and Sorting of Workings into the Public Sectors*, *in* FOR THE PEOPLE: CAN WE FIX PUBLIC SERVICE? (J.D. Donahue & J.S. Nye eds., 2003); KEEFE, *supra* note 1; Sang-Hyop Lee, *A Reexamination of Public-Sector Wage Differentials in the United States: Evidence from the NLSY with Geocode*, 43 INDUS. REL. 448 (2004); Gregory B. Lewis & Chester S. Galloway, A National Analysis of Public/Private Wage Differentials at the State and Local Levels by Race and Gender (Andrew Young School of Policy Studies Research Paper Series No. 11-10, 2011), *available at* http://ssrn.com/abstract=1768190; Michael Miller, *The Public-Private Pay Debate: What Do the Data Show?*, 119 MONTHLY LAB. REV. 18 (1996).

less visible costs. In particular, the costs of employment protection are felt mostly in the form of lost productivity. Consequently, even if the claims of excessive compensation are overblown, public-sector unionization may indeed impose significant costs, albeit of an altogether different kind.

Despite this somewhat mixed message, my ultimate conclusion is that the curtailment or abandonment of public-sector collective bargaining to address the more legitimate problems of public-sector productivity would be both short-sighted and self-defeating. Reforms should address improving the functioning of public-sector collective bargaining, not abolishing it altogether. This article proposes a number of labor-market policy changes that can achieve these objectives.

Part I of the article reviews the law-and-economics literature on collective bargaining and employment security. It then provides an analysis of collective bargaining and employment protection to argue that the two represent tradeoffs for risk-averse workers.

Part II then probes the particularities of public-sector collective bargaining to make further predictions about the relationship between compensation and employment protection in the public sector. It considers the politics of public-sector unionism, the sheltered nature of public-sector production, the decentralized nature of public-sector collective bargaining, and the problem of adverse selection.

Part III investigates alternatives to the existing regime of public-sector collective bargaining and considers four alternatives: (1) greater coordination or centralization in public (and perhaps public-private) collective bargaining, (2) improved unemployment insurance, (3) job training and retraining programs, and (4) privatization of public services.

I. ECONOMIC ANALYSIS OF COLLECTIVE BARGAINING AND EMPLOYMENT PROTECTION

Although the focus of this article will be on the public sector, collective bargaining and employment protection in the private sector share many of the same features and have similar consequences. It is therefore necessary to review the general debates over collective bargaining and employment protection, which will be done in Parts I.A and I.B. Part I.C. draws on this discussion to build a model of collective bargaining over wages and employment security.

A. Collective Bargaining

Economists and legal scholars continue to debate the economic consequences of collective bargaining. The original analyses focused on two models: the "monopoly union" model, where the union *unilaterally* sets the wage, subject to the employer's *unilateral* choice over how many workers to hire;[7] and the "right-to-manage" model, where the union and employer *bargain*

7. JOHN T. DUNLOP, WAGE DETERMINATION UNDER TRADE UNIONS 82-94 (1944) (explaining various models involving product markets and labor markets).

over the wage, subject to the employer's *unilateral* choice over how many workers to hire (hence, the "right to manage").[8] In either case, roughly the same outcome is obtained: as unions impose or bargain a wage above the competitive market level, employers reduce the number of employees they hire, leading to greater unemployment. Higher unemployment means economic inefficiency: with more workers unemployed, the economy is not producing as much output as it otherwise could.

It is important to point out that in these models it is assumed that unions seek to maximize the *wage bill*, which takes into account both the increase in wages *and* the number of workers in the hiring pool (which in turn is assumed to equal the union's membership).[9] In other words, unions are utilitarian: they want the greatest good for the greatest number. This sort of behavior implies that the wage that the union sets is not as high as if the union cared only about wages. Despite that, according to the theory, unions find that they can maximize the wage bill by raising wages even though employment at the firm declines (and unemployment increases).[10] Certainly other assumptions could be made about how unions behave, but the results are not strikingly different, and the model is at least broadly consistent with empirical realities.

After the original analysis of the monopoly union model, the economist Wassily Leontief pointed out that in that model neither employers *nor* unions were getting the best outcome they could.[11] In what is called the "efficient" or "off-the-demand-curve" model of union behavior, the union and the employer *bargain* over *both* wages and the level of employment.[12] This seems a reasonable assumption. For one, "bargaining," as opposed to the unilateral setting of terms, is a better description of what goes on when employers and unions negotiate. Furthermore, without question, unions bargain over more than wages. While it is infrequent to observe collective agreements that explicitly mention the number of employees, unions certainly bargain over staffing levels, manning requirements, and a range of other issues that affect the firm's employment level. As it turns out, when unions and employers bargain in this fashion, unions are able to pass on some of the firm's surplus to workers in the form of higher wages without any drop in employment.[13] Such agreements are thus efficient in two senses: first, it is production or output efficient, since employment remains at the competitive, market-clearing level;[14] and, second, it is

8. S.J. Nickell & M. Andrews, *Unions, Real Wages and Employment in Britain 1951-79*, 35 OXFORD ECON. PAPERS 183, 184 (1983). One can view the monopoly-union model as a special case of the right-to-manage model where the union has all of the bargaining power with respect to setting the wage.

9. DUNLOP, *supra* note 7, at 195.

10. *Id.* at 207-09.

11. Wassily Leontief, *The Pure Theory of the Guaranteed Annual Wage Contract*, 54 J. POL. ECON. 76, 76-77 (1946).

12. Ian M. McDonald & Robert M. Solow, *Wage Bargaining and Employment*, 71 AM. ECON. REV. 896, 896 (1981).

13. Kenneth G. Dau-Schmidt, *A Bargaining Analysis of American Labor Law and the Search for Bargaining Equity and Industrial Peace*, 91 MICH. L. REV. 419, 435-36 (1992).

14. *Id.* at 422.

Pareto efficient, in that both the union and the employer improve their welfare (higher profits for the employer, a larger wage bill for the union) over the monopoly union or right-to-manage model.[15] Indeed, in this bargain, any further gain for the union or employer can only come at the expense of the other.

Some members of the public are more accustomed to thinking about labor unions as the very opposite of efficient: to put pejorative phrases in the best light, unions are frequently depicted as a group of workers seeking to advance their own interests at the expense of the firm and perhaps everyone else.[16] But a little reflection about this suggests the opposite and reinforces the conclusion about efficient bargaining in the previous paragraph. If unions are utilitarian—or, more crudely, if they want the most for their members—then they have a strong incentive for efficient production.[17] A union of this sort will want to increase efficiency, not decrease it. Only if the firm is using the most efficient level of employment will the union be able to achieve the maximum rent for its members.[18] If two people are bargaining over how to divide a pie, each can get more by insuring that the size of the pie is as large as possible.

When "efficient" bargaining is introduced, labor unions begin to look better than their "monopolistic" reputations would suggest. However, as we shall shortly see, the efficient-bargain model also requires certain assumptions about workers' attitudes toward risk.[19] When some of these assumptions are relaxed, collective-bargaining inefficiencies again reintroduce themselves. Before we investigate this question, let us survey the economics of employment protection.

B. Employment Protection

Another contentious matter of debate among law scholars and economists concerns the consequences of employment protection. At first glance, employment protection is something of a puzzle for economic theory (if not for casual intuition). So before surveying the literature on the impacts of employment protection in Part I.B.2, Part I.B.1. details how economic theory explains employees' preferences for job protection.

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15. An allocation of resources (e.g., wages and profits) is said to be Pareto superior to a different allocation if it increases at least one person's utility without decreasing another person's. Jules L. Coleman, *Efficiency, Utility, and Wealth Maximization*, 8 HOFSTRA L. REV. 509, 515 (1980). Of course, under this definition, allocations that improve both persons' utility are Pareto superior as well. An allocation of resources is said to be Pareto optimal or Pareto efficient if *no* other allocation can improve a person's utility without decreasing another person's. "Pareto-optimal distributions have no distributions Pareto superior to them." *Id.* at 517.

16. Scholars often use the term "monopoly face" to refer to "any union effect that decreases efficiency or total value (the 'size of the pie') to firm stakeholders (workers and owners) and consumers." Barry T. Hirsch, *What Do Unions Do for Economic Performance?*, 25 J. LAB. RES. 415, 420 (2004).

17. Dau-Schmidt, *supra* note 13, at 439-40.

18. *Id.*

19. *See infra* Part I.C.

1. *Why Employment Protection? Imperfection in Labor Markets*

Within the most basic framework of economic theory, employment protection presents a conundrum. If labor markets in particular are working as the textbook case would have it, there would be no need for employment protection. If labor markets were perfectly competitive, workers' compensation in employment would equal exactly what they would get out of employment—whether self-employed, engaged in "home" production, or alternative employment, if it could be gained instantaneously. Of course, reality is something different, and most jobs pay wages above what one can get by working in the home; further, becoming reemployed after losing one's job often takes some time. From the standpoint of economic theory, the question is, *why*? One proposed explanation has to do with the problem of contracting for how hard employees work. Since employers or their agents cannot perfectly observe how hard, diligent, or careful employees are in their work, employers may pay wages above the competitive level, called "efficiency wages."[20] In this scenario there is no incentive to work if workers are paid exactly what they can get outside of the labor market, since effort cannot be contractually enforced and workers are indifferent to losing their jobs.[21] Thus, if employers pay efficiency wages, job loss is associated with a substantial penalty, and this provides some incentive for workers to be diligent in order to avoid losing the higher wages.[22] One consequence of this is a permanent fraction of unemployed persons seeking work, because wages are higher than needed to equate labor demand with supply.[23]

A possibly more intuitive explanation has to do with the "frictions" of the job search process.[24] The process of matching workers to jobs is imperfect.[25] Employees typically do not receive an offer for every job to which they apply. Similarly, employers sometimes have more willing takers than the number of job vacancies or sometimes have fewer acceptances than the number of vacancies. Given this imperfection and the possibility that a job vacancy may remain unfilled, employers may offer supra-competitive wages in order to ensure a long

20. In general, the problem of contracting in the presence of "hidden action"—actions that are difficult to observe or verify—is called *moral hazard.* Carl Shapiro & Joseph E. Stiglitz, *Equilibrium Unemployment as a Worker Discipline Device*, 74 AM. ECON. REV. 433, 434 (1984).

21. Specifically, this theory is called the *shirking model* of efficiency wages. For the best known presentation of this version of the theory, see *id.* at 433. Other authors have posited alternative versions of efficiency wage theory. *See generally* Janet L. Yellen, *Efficiency Wage Models of Unemployment*, 74 AM. ECON. REV. 200, 200 (1984) (discussing alternative reasons that employers may pay above-market wages, including to reduce shirking, to lower turnover, to improve the average quality of job applicants, or to improve morale among the workforce).

22. Shapiro & Stiglitz, *supra* note 20, at 433.

23. *Id.*

24. Peter A. Diamond, *Wage Determination and Efficiency in Search Equilibrium*, 49 REV. ECON. STUD. 217, 217 (1982).

25. *Id.* (contrasting the competitive market with a "search process" that randomly "brings together unemployed workers and vacant jobs pairwise").

enough "queue" of job seekers to fill the vacancy.[26] This wage-posting behavior drives a wedge between the perfectly competitive wage, which exactly matches workers best alternative, and the wage the employee actually receives.[27]

Whatever the cause, in either the efficiency wage or job-matching theory, wages are higher than workers' next best alternative, and there is a permanent pool of unemployed workers. Supra-competitive wages imply that job loss has a cost; the existence of a pool of voluntarily unemployed workers implies that finding new employment is not instantaneous. Consequently, workers are no longer indifferent about losing their jobs, and will want some form of employment protection.

Finally, collective bargaining can itself be a source of divergence between actual and market-clearing wages. By raising wages even further above the efficiency or job-matching wage, collective bargaining may amplify workers' preferences for employment security, even if it is not necessary for those preferences. Indeed, the added attraction of employment security in the collective-bargaining context, owing to the higher wages and therefore higher penalty for job loss,[28] is perhaps one of the most likely reasons why "just cause" protection against arbitrary termination is found most frequently where unions bargain for workers.[29]

2. *The Economics of Employment Protection*

Employment rents—whether from efficiency wages, job-matching frictions, or amplified by collective bargaining—constitute at least one reason, and are perhaps the most important reason, for employees' preferences for job security. The next issue is what impact employment security has on the efficient functioning of labor markets. In other words, employees may want employment protection, but is employment protection a good thing for the economy?

The standard argument in favor of some form of job security is to protect employees from employer opportunism. In this argument, employment security is required to encourage workers to invest in firm-specific skills and prevent employers from taking advantage of workers (for example, by terminating them or lowering their wages) once those firm-specific skills are acquired (and therefore of little value elsewhere). In his widely-cited article, *In Defense of the Contract at Will*, Richard Epstein countered this argument and made the case that

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26. Two different versions of this process are modeled in James D. Montgomery, *Equilibrium Wage Dispersion and Interindustry Wage Differentials*, 106 Q.J. ECON. 163, 166-75 (1991), and Espen R. Moen, *Competitive Search Equilibrium*, 105 J. POL. ECON. 385, 388-99 (1997).

27. Daron Acemoglu, *Good Jobs Versus Bad Jobs*, 19 J. LAB. ECON. 1, 9 (2001) (demonstrating theoretically that wage differences disappear as the model converges on the perfectly competitive, "Walrasian" market allocation).

28. This possibly also applies to higher unemployment and longer spells of unemployment as well. *See generally* LAWRENCE MISHEL & MATTHEW WALTERS, ECON. POLICY INST., HOW UNIONS HELP ALL WORKERS (Briefing Paper No. 143, Aug. 23, 2003), *available at* http://www.epi.org/publication/briefingpapers_bp143/ (discussing the benefits of unions to both union and non-union workers).

29. *Id.*

just cause was inefficient.[30] If a legally-binding, just-cause agreement really leads to efficiency-enhancing investment in employee skills or training, employers would gladly offer it voluntarily.[31] If they do not offer such contracts, then they will not be able to encourage workers to invest in firm-specific skills. However, as Epstein argued, the fact that most employees agree to at-will contracts suggests the opposite conclusion, that just cause is inefficient.[32]

One response to Epstein's economic argument was that individually agreed upon just-cause employment contracts would be driven out of the market by "lemons," or adverse selection.[33] Just cause could increase efficiency, for example, by slowing down job turnover and creating longer spells of unemployment, which would encourage workers who fear losing their jobs to worker harder for less pay, which would in turn expand employment and productivity.[34] However, any contract offered by employers that provided a just cause term would attract too many underperforming workers, or "lemons," causing such employers to be driven out of the market.[35] An employer would offer a just-cause term only if she could be ensured that all other employers would also offer them.[36] In this case, underperforming workers would then be indifferent toward any particular firm and would be distributed evenly across the economy. In this argument, legislation is necessary to mandate just cause across all employers in order to achieve the efficient outcome.[37]

Nevertheless, critics of employment protection had a ready response to the "lemons" argument. This response is that employers could offer different contracts that would efficiently "sort" different kinds of workers into different kinds of jobs—without any need for government imposed regulation. Each potential employer would offer two different contracts: one with higher wages and no job protection and one with lower wages and job protection. Underperforming workers, who are more likely to be fired, and who therefore value job security more, will opt themselves into the second contract, while higher performing workers will opt for the first. The outcome is a "separating equilibrium" that optimally sorts the type of worker into the appropriate contract, avoids the adverse selection problem, and does so without any need for government intervention. Like Epstein's argument, the contracting argument

30. Richard A. Epstein, *In Defense of the Contract at Will*, 51 U. CHI. L. REV. 947, 951-53 (1984).

31. *Id.* at 973-74.

32. J. Hoult Verkerke, *An Empirical Perspective on Indefinite Term Employment Contracts: Resolving the Just Cause Debate*, 1995 WIS. L. REV. 837, 875.

33. Walter Kamiat, *Labor and Lemons: Efficient Norms in the Internal Labor Market and the Possible Failures of Individual Contracting*, 144 U. PA. L. REV. 1953, 1957-63 (1996); David I. Levine, *Just-Cause Employment Policies in the Presence of Worker Adverse Selection*, 9 J. LAB. ECON. 294, 296-301 (1991) [hereinafter Levine, *Adverse Selection*].

34. David I. Levine, *Just-Cause Employment Policies When Unemployment Is a Worker Discipline Device*, 79 AM. ECON. REV. 902, 902 (1989) [hereinafter Levine, *Unemployment*].

35. Kamiat, *supra* note 33, at 1964-65; Levine, *Adverse Selection*, *supra* note 33, at 295.

36. Levine, *Adverse Selection*, *supra* note 33, at 295.

37. Levine, *Unemployment*, *supra* note 34, at 905.

suggests that legally mandating employment protection is both unnecessary and unwise.

Another contribution to the debate over just cause questions how knowledgeable workers are about their employers' dismissal policies.[38] The vast majority of employment contracts may be at will, but if workers misunderstand the security of their employment, this outcome does not imply that the actual absence of just cause is an optimally contracted-for outcome. In fact, most workers erroneously believe that the law mandates some form of just-cause protection, when the opposite is the case.[39] Based upon these findings, advocates of just cause have argued that the law ought to be aligned with workers' expectations and that the law should adopt just cause as the "penalty default" rule.[40] With just cause as a penalty default, employers, who typically bargain with individual workers on a "take it or leave it" basis, would be forced to make more explicit what the actual legal relationship of employment creates. It would also presumably allow workers to bargain for higher wages if the employer preferred an at-will agreement.

In addition to these arguments about optimal employment contracting, labor-market researchers have explored employment protection in a more macroeconomic view, by analyzing its impact on the rate of unemployment.[41] The surprising finding is that employment protection may have little effect on the rate of unemployment. While it is common to think of regulations as a tax on economic activity, such a view is too imprecise when applied to employment protection legislation. In fact, it is probably better to think of employment protection legislation as a tax (or more simply as a cost) on *firing* workers, rather than a tax on hiring workers (such as a payroll tax).[42] In this view, employment protection may have little or no impact on the rate of unemployment, since the only additional cost is in letting a worker go, not in hiring a new one.[43]

However, this noneffect of employment protection on the unemployment rate does not imply that employment protection legislation has no economic consequences. Unjust dismissal laws may slow the rate of workers entering the unemployment pool and, consequently, slow the rate of hiring workers, thereby causing the rate of workers *exiting* the unemployment pool to also slow.[44] To the extent that workers' skill and human capital depreciates more quickly when unemployed, longer unemployment spells imply a lower stock of human capital

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38. Pauline T. Kim, *Bargaining With Imperfect Information: A Study of Worker Perceptions of Legal Protection in an At-Will World*, 83 CORNELL L. REV. 105, 109-10 (1997); Pauline T. Kim, *Norms, Learning, and Law: Exploring the Influences on Workers' Legal Knowledge*, 1999 U. ILL. L. REV. 447, 453-54 [hereinafter Kim, *Norms, Learning, and Law*].

39. Kim, *Norms, Learning, and Law*, *supra* note 38, at 449.

40. Guy Davidov, *In Defence of (Efficiently Administered) "Just Cause" Dismissal Laws*, 23 INT'L J. COMP. LAB. L. & INDUS. REL. 117, 122 (2007).

41. Olivier Blanchard & Pedro Portugal, *What Hides Behind an Unemployment Rate: Comparing Portuguese and U.S. Labor Markets*, 91 AM. ECON. REV. 187, 188 (2001).

42. GILLES SAINT-PAUL, DUAL LABOR MARKETS: A MACROECONOMIC PERSPECTIVE 6-11 (1996) (construing employment protection legislation as a "firing cost").

43. *Id.* at 7.

44. Blanchard & Portugal, *supra* note 41, at 191.

and, consequently, lower economic output.[45] Employment protection may have another negative consequence for labor productivity: higher firing costs lower the productivity threshold employers use to determine whether to retain or dismiss a worker.[46] In other words, employment protection forces employers to maintain underperforming workers in employment. This last argument plays a crucial role in the model constructed in this next subsection.

C. *A Model of Wage and Security Bargaining*

Thus far, the article has reviewed the economic and legal literature on collective bargaining and employment protection legislation. To understand the impact of collective bargaining on compensation and employment security in the public sector, we need to put these two strands of research together. This section does that by explicitly considering a model of collective bargaining over wages and employment security. This model will provide a general, "baseline" case, from which more specific attributes of the public sector and their impacts on collective bargaining will be considered in Part II.

The conclusion of the "efficient" bargaining model of labor unions was that unions would have an interest in obtaining the economically efficient outcome.[47] However, this outcome requires one critical assumption, namely that workers are neutral with respect to risk.[48] In contrast, when workers are risk averse, inefficiency will reintroduce itself, even when unions and employers bargain over both wages and employment. In the language of economics, workers are risk averse when they do not accept "fair bets," and they are risk neutral when they do.[49] To illustrate what this means, suppose you have a choice between, on the one hand, receiving $100 with a 90% chance or $0 with a 10% chance; on the other hand, you can choose to receive $90 with certainty. A risk neutral person would be indifferent about these two choices because they are, actuarially speaking, identical: (0.90 x $100) + (0.10 x $0) = $90. On the other hand, a risk-averse person would strictly prefer the $90 with certainty over the equally favorable, "fair" bet. In other words, the risk-averse person is willing to trade away the possibility for a larger payoff for greater certainty in the outcome—or in other words, a risk-averse person is willing to *pay* for greater certainty.

Similarly, when the union bargains on behalf of risk-averse workers, it will be willing to make sacrifices in productive efficiency for the sake of employment security. In other words, more risk-averse workers place greater weight on having a job (and avoiding the fall in income associated with job loss) than they

45. SAINT-PAUL, *supra* note 42, at 164 (conveying the "traditional argument" that "long spells of unemployment are associated with skill deterioration").

46. Blanchard & Portugal, *supra* note 41, at 196-97. For empirical evidence of the productivity-lowering consequences of employment protection, see generally Andrea Ichino & Regina T. Riphahn, *The Effect of Employment Protection on Worker Effort: Absenteeism During and After Probation*, 3 J. EUR. ECON. ASS'N 120 (2005).

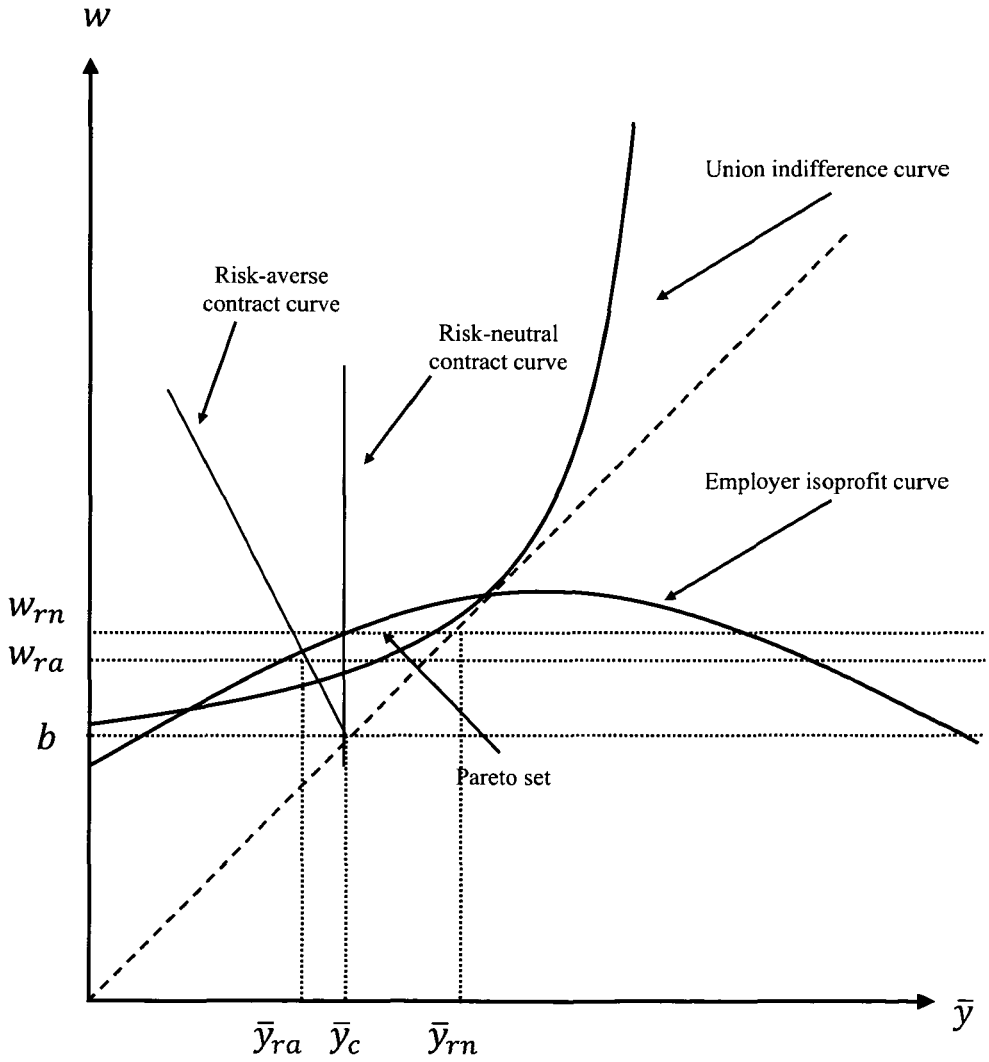
47. *See* Dau-Schmidt, *supra* note 13, at 433.

48. *See* PIERRE CAHUC & ANDRÉ ZYLBERBERG, LABOR ECONOMICS 397-99 (2004).

49. For an introduction to the concept of risk aversion, see ANDREU MAS-COLELL ET AL., MICROECONOMIC THEORY 183-91 (1995).

do on getting the largest wage possible. The direct implication of this is that if job-protection rules make the firm they work for less productive and, consequently, lower the wage for which unions can bargain, risk-averse workers will be willing to accept this trade-off. Risk-neutral workers on the other hand would prefer to have the level of employment protection determined by the competitive market (perhaps hypothetical), which is the level that maximizes the firm's productivity.

FIGURE 1: COLLECTIVE BARGAINING: WAGES AND EMPLOYMENT SECURITY



The figure above may help illustrate this relationship. The figure represents any possible combination of wages (w) and a measure of employment protection ($\bar{y}$) in a contract between an employer and a union. To avoid confusion, note that as one moves right on the $\bar{y}$ dimension, employment protection generally becomes *more* favorable to the *employer*. Indeed, one should think of $\bar{y}$ as a kind of "production standard." The y (without the bar) represents the productivity of the employee,[50] while the $\bar{y}$ (with the bar) represents the threshold at which employers may dismiss an employee. If y exceeds $\bar{y}$, the employer keeps the employee, while if y is below $\bar{y}$, the employer dismisses the employee. Accordingly, as $\bar{y}$ moves to the right, the higher an employee's productivity (y) has to be in order to avoid being dismissed.

On this two-dimensional graph a number of lines and curves are represented. The two curves each represent the union's indifference curve and the employer's isoprofit curve. Both curves represent different combinations of wages and employment protection that result in, respectively, either the *same* level of utility for the union or the same level of profit for the employer. To become *better* off, the union prefers points that are above and to the left of its indifference curve (the union wants higher wages and more employment protection), while the employer prefers points that are below and to the right (the employer wants lower wages and less employment protection). These two curves intersect at two points, creating a "lens." Note that within this lens are points that *both* the union and the employer prefer to those on their respective indifference (isoprofit) curves. This lens is accordingly called the Pareto set, because it represents contracts that make both of the parties better off without making the other worse off.[51] Finally, the dashed line, starting from the bottom left and radiating out toward the upper right, is a 45-degree line, representing all points where the wage and the production standard are equal. Its relevance will be discussed presently.

Suppose that without a union, wages were equal to point b. Then, under an employment-at-will regime, an employer would set the production standard equal to this wage. We call this $\bar{y}_c$ to refer to the production standard set in the "competitive" wage environment. The employer chooses this standard, because any employee who produces more than she costs in wages represents a net gain to the employer and is worth keeping. Conversely, any employee who produces less than she costs in wages will constitute a loss for the employer. Hence, the 45-degree line represents the production standard that the employer would choose (say, under a regime of employment at will) for any given wage.

Now suppose that the employer bargains with a union. We can predict that wages will be higher than in the competitive labor market, but by how much? Furthermore, how does employment protection change when it is a subject of bargaining, and does it influence wages? The answers to these questions depend on whether workers are risk averse or risk neutral. Recall from our previous

50. None of the results require assessing individual employee abilities. One could also assume that y measures the productivity of the *match* between the employer and employee, that is, how good a "fit" the employer and employee make, and not just the employee's independent abilities.

51. Coleman, *supra* note 15, at 513.

discussion that when workers are risk neutral, they want the biggest slice of the economic pie possible.[52] The union will therefore want to bargain for wages equal to w_{rn} (for risk neutral) and for a production standard equal to $\bar{y}_c$, the standard of production determined in the competitive labor market.[53] With an identical standard of production as results without a union, there will be no loss in productive efficiency. More generally, the union and employer will bargain for any point along the vertical, risk neutral contract curve within the Pareto set. If the Pareto set tells us the set of contracts that make both the union and the employer better off, the contract curve locates a set of points within the Pareto set where the union cannot be made better off without making the employer worse off, and vice versa. When the employer and union have reached the contract curve, they have exhausted all possible gains from trade. The point chosen on the contract curve depends on the relative bargaining strengths of the union and the employer.

Also note that maintaining the $\bar{y}_c$ standard of production is no longer self-enforcing from the employer's perspective. If the employer now has to pay higher wages, it would now like to employ only more productive employees. Given wages of w_{rn}, the employer's preferred production standard is now the corresponding point on the 45-degree line: $\bar{y}_{rn}$. Thus, in order to enforce its preference for a less strict production standard, the union will have to bargain for a just cause term, which requires the employer to show that an employee's performance fell below some agreed upon level before an employee can be dismissed. Note also that this implies that the mere presence of just cause language is not evidence, by itself, of inefficient levels of employment protection.

When workers are risk averse, however, a different outcome results. When workers are risk averse, they no longer want to take home the largest possible pay. They have preferences for having a job, not just for how much it pays. Unions representing risk-averse workers will therefore tend to prefer higher levels of protection over maximizing the economic product. This preference is reflected in a "tilting" contract curve, displayed in Figure 1, as compared to the perfectly vertical, risk neutral contract curve. This "tilt" becomes greater the more risk-averse workers are. The result is a lower wage (w_{ra}) and a higher level of employment protection ($\bar{y}_{ra}$) than in the risk neutral case. The main economic implication of this is that with a production standard more favorable to employees, the employer will be obligated to maintain in employment less productive employees.

The central conclusion is that compensation and employment security are tradeoffs. To the extent that employment protection is high in the public sector, we should expect that this will be accompanied by correspondingly lower wages—if not lower than without collective bargaining, then lower than might be

52. *See* Milton Harris & Yoram Weiss, *Job Matching with Finite Horizon and Risk Aversion*, 92 J. POL. ECON. 758, 759-60 (1984).

53. The assumption of a perfectly competitive labor market, which leads to the production maximizing standard, is only hypothetical. But it establishes a useful benchmark by which we can measure the relative efficiency of other labor market arrangements.

expected. This implies that the wage costs of collective bargaining are likewise limited by workers' risk preferences and the tradeoffs they make in favor of employment security. However, the limits that employment security places on wage increases are not cost free. Employment security may require the employer to keep in employment less productive employees.[54] Just like wage costs, lost productivity is a cost ultimately born by the public.

II. COLLECTIVE BARGAINING AND EMPLOYMENT PROTECTION IN THE PUBLIC SECTOR

The model analyzed in Part I.C. concluded that wages and employment security are tradeoffs. In particular, if workers are more risk-averse, wages will be *lower* and employment protection will be higher. However, at this stage there is nothing in the model that distinguishes between collective bargaining in the public versus the private sectors. Are there any reasons to think that public-sector workers will be more risk averse than private-sector workers? This Part considers some of the differences between work and production in the public and private sectors to examine whether any of those differences can lead to greater risk-aversion in the public sector. In particular, four different attributes are analyzed: (1) the politics of public-sector bargaining, (2) the "sheltered" quality of public-sector production, (3) the decentralized nature of collective bargaining in the United States, and (4) adverse selection. While the first factor might cause *both* wages and job security to rise in the public sector, all of the remaining factors suggest that workers in the public sector may be more risk-averse, and consequently more willing to trade away wages for security.

To be clear, the precise comparison being made here is between *collective bargaining* in the public and private sectors. Because unionization rates among public and private workers differ so greatly, caution must be used in any extrapolations one may draw about public and private differences generally. Nevertheless, if the factors described here are strong enough, they are entirely consistent with, and may help explain why, the empirical studies cited earlier find lower compensation in the public sector despite higher levels of unionization.

A. The Politics of Public-Sector Unionism

In the typical employment relationship, we think of the employee as the "agent," hired to carry out the tasks assigned by the employer, the "principal." Yet a real question arises about who is the principal and who is the agent when looking at the public sector. Public-sector employers are ultimately accountable to the electorate, and the electorate includes public-sector employees, many of whom are more organized and carry greater influence than their fellow unorganized electors.[55] Under these circumstances, political authorities may not wish to bargain as hard with public-sector unions and may be more willing to

54. *See* Ichino & Riphahn, *supra* note 46, at 140.

55. Terry M. Moe, *Political Control and the Power of the Agent*, 22 J.L. ECON. & ORG. 1, 4-5 (2006).

grant concessions on policy or funding than would otherwise be the case.[56] This response may also be encouraged by the fact that the costs of these concessions are diffused across a large number of tax payers.[57] As such, political authorities do not bear the direct costs of these concessions, and the cost born by the individual tax payer is insufficient to provoke them to overcome their collective-action dilemma.[58]

How do the particular political advantages of public-sector unions affect the trade-off between wages and employment security? In this case, the political power of public-sector unions can increase *both* their wages and employment security, relative to the private sector. Thus, we should expect both wages and employment security to be higher when labor unions have special political influence as compared to when they do not. However, depending on the risk preferences of the workers, these gains will be allocated in different proportions to wages and employment security. That is, although enhanced political influence will allow unions to increase both wages and security, if public-sector workers are risk averse, they will be prefer the greater balance of their gains to go to employment protection rather than to wage increases.

B. The Consequences of Sheltered Markets

An important peculiarity of collective bargaining in the public sector is the "sheltered" nature of much of public production.[59] Government services, such as prisons, sanitation, airports, education, utilities, healthcare, and human services are frequently provided as monopolies—the government agents who deliver these services do so under no competitive pressure.[60] Of course, privatization of public services constitutes an important exception to this absence of competition, a phenomenon we will return to later in Part III.

Although the special political orientation of public-sector unions suggests an increase in wages and security compared to the baseline case, the consequences of government monopoly, and the nature of government production more generally, is far more ambiguous. First, consider a monopoly of any kind, public or private. If a monopolistic organization bargains with a union, union wage increases will raise the cost of labor, reduce the organization's

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56. *Id.* at 4.

57. James T. Bennett & Thomas J. DiLorenzo, *Public Employee Unions and the Privatization of "Public" Services*, 4 J. LAB. RES. 33, 33 (1983).

58. *Id.*

59. Peter Feuille, *Unionism in the Public Sector: The Joy of Protected Markets*, 12 J. LAB. RES. 351, 353 (1991) (noting that public employers "do not have the same incentives to resist unions as their private sector counterparts do because of the absence of competitive product market pressures"). *Cf. Competitive Contracting for More Effective & Efficient Government: Hearing Before the Subcomm. on Civil Serv. of the H. Comm. on Gov't Reform & Oversight*, 104th Cong. 9 (1995) (statement of Wendell Cox, Dir., Am. Legislative Exch. Council), *available at* http://www.publicpurpose.com/pp-pvtza.htm (arguing that "the competitive market is not applied to the factors of public service production" and therefore that the "result is higher than necessary costs").

60. Feuille, *supra* note 59, at 352.

demand for labor, and cause employment within the organization to decline. Now consider a firm in a competitive industry. Union-bargained wage increases likewise raise the cost of labor, but there is a second effect of wage increases that also reduces the demand for labor.[61] When labor costs rise, a competitive firm's products also become more expensive, which puts them at a disadvantage relative to other firms in the industry. This reduces consumers' demand for the products of the firm with the wage increase, while it increases demand for other firms' products. Reduced product demand constitutes a second reason for reduced labor demand in the competitive industry, since it implies a lower demand for labor to produce a smaller output. Because utilitarian unions care about wages *and* labor, when competitive conditions make labor demand more sensitive (more elastic, in economists' language), they will limit their wage demands.[62] Conversely, wage demands will be higher in monopolistic industries. This sort of reasoning likewise has similar implications for employment security. Since monopolistic industries are less sensitive to labor costs in general, whether from wage costs or employment-protection costs, unions should be able to bargain more stringent employment-security rules in monopolistic industries. Thus, the absence of competition in government production could lead to a conclusion that both wages and employment security will be higher in public-sector bargaining than in private-sector bargaining. However, again, wage increases and greater employment security will come in different proportions. In particular, risk-averse workers will make greater demands for employment protection than for wage increases.

Yet monopoly production in the public sector has another important—and countervailing—consequence for public-sector collective bargaining. Economists have long argued that monopolistic industries have weaker incentives to innovate.[63] This implies, again to the degree that this is true in the public sector, that innovation and, consequently productivity, should be smaller in the public sector than in the private sector.[64] Lower productivity should have the opposite effect on collective-bargaining outcomes than in the previous paragraph. With lower productivity, labor is already essentially more costly, and these costs will limit the ability of unions to raise wages and employment protection in the public sector. In addition, another reason that the public sector may be less productive than the private sector is that the public-sector production is dominated by services, which are widely thought to be less susceptible to productivity increases

61. Chris Edwards, *Public Sector Unions and the Rising Costs of Employee Compensation*, 30 CATO J. 87, 100 (2010), *available at* http://www.cato.org/pubs/journal/cj30n1/cj30n1-5.pdf.

62. *Cf. id* (observing that while higher costs of public sector workers are borne by taxpayers, "private sector unions need to keep in mind that higher business costs may result in lost sales and fewer jobs").

63. Kenneth J. Arrow, RAND Corp., *Economic Welfare and the Allocation of Resources for Invention*, *in* THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS 609, 619-22 (1962); Bhaskar Sastry, *Market Structure and Incentives for Innovation*, INTERTIC 4 (June 2005), http://www.intertic.org/Policy%20Papers/Sastry.pdf.

64. *See* Germà Bel et al., *Is Private Production of Public Services Cheaper Than Public Production? A Meta-Regression Analysis of Solid Waste and Water Services*, 29 J. POL'Y ANALYSIS & MGMT. 553, 555 (2010), *available at* http://www.ub.edu/graap/JPAM_BFW.pdf.

than in manufacturing or goods production.[65] Thus, lower productivity and the service orientation of government production should lead one to expect *lower* compensation for public-sector workers and in public-sector collective bargaining.

C. Bargaining Structure: Decentralized versus Centralized Bargaining

Collective bargaining in the United States has always been very decentralized.[66] The locus of bargaining authority is normally at the level of the "Local" union organization and conducted with a single firm, or even a single plant or workplace, and sometimes even between a single establishment and a mere subset of workers in a given workplace.[67] In European countries, an important amount of collective bargaining is more likely to take place at the industry-wide level, and in some instances, even at the national level.[68] There have of course been exceptions in the United States to the usual rule of decentralization. Multi-employer agreements have been known in auto, steel, and trucking, for instance.[69] But even here, this multi-employer bargaining comprises subsections of industries that would be subsumed under more encompassing bargaining in other countries. For example, in Europe there might often be a single metalworking union that bargains with steel-producing *and* steel-using industries (such as auto); or a single transportation union that would cover ground, rail, and air transport.[70]

Collective bargaining in the public sector is no different from the private sector in the United States and is likewise highly decentralized.[71] My guess would be that most collective bargaining takes place at a municipal level and even there would be further divided between different groups of workers. At a large public university, for instance, it is not uncommon to have separate unions, each conducting separate bargaining, for faculty, graduate student assistants, administrative staff, and building and maintenance staff. Some of these divisions may make sense, some may not. There is regional decentralization as well, which is aided and abetted by the law, where each state has its own legal regime

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65. *See, e.g.*, WILLIAM J. BAUMOL & WILLIAM G. BOWEN, PERFORMING ARTS: THE ECONOMIC DILEMMA 161 (1966) (drawing attention to the phenomenon of continuing and compounded rises in the real costs of service production, including live performing arts, automotive repair, health care, education, postal services, automotive and accident insurance, and care of the indigent). *See also* William J. Baumol, *Health Care, Education and the Cost Disease: A Looming Crisis for Public Choice*, 77 PUB. CHOICE 17 (1993) (exploring the consequences of the lack of productivity growth, the "cost disease," in public sector services).

66. *See* Michael Wallerstein & Bruce Western, *Unions in Decline? What Has Changed and Why*, 2000 ANN. REV. POL. SCI. 355, 364.

67. *See id.*

68. *Id.* at 366 tbl.3.

69. Clyde W. Summers, *Exclusive Representation: A Comparative Inquiry into a "Unique" American Principle*, 20 COMP. LAB. L. & POL'Y J. 47, 59 (1998).

70. *Id.*

71. *See* Wallerstein & Western, *supra* note 66, at 361.

for governing collective bargaining (to the extent that it has any law in this area at all).

Decentralized bargaining presents at least two consequences for compensation and employment security outcomes in collective bargaining. The first is that decentralized bargaining does nothing to reduce—and may help exacerbate—wage differentials among and between public and private employers in the labor market. Wage differentials increase the uncertainties about the consequences of job loss and therefore increase the demand for job protection. The second is that decentralized bargaining may present a "hold up" problem that leads to lower investment and therefore lower productivity and lower wages. While decentralized bargaining is not unique to the public sector in the United States, each of these factors, in combination with the higher union density in the public sector, can help explain why public sector wages may nevertheless lag behind the private sector.

1. *Decentralized Bargaining and Industry and Firm Wage Differentials*

The first important implication of decentralized bargaining for employment security is its effect on industry and firm wage differentials. Industry or firm wage differentials refer to the degree to which wages differ between industries or firms for work that is otherwise the same; such work would therefore be expected to yield identical wages.[72] These wage differentials have important implications for employees' risk preference. Greater wage dispersion introduces even greater uncertainty about the welfare workers will receive if they lose their jobs. Not only must they worry about the lost wages from being unemployed, but they must also worry about the prospects they face once (or even if) they become reemployed. Much research demonstrates that involuntary job loss is associated with significant and permanent declines in income even once reemployed.[73] This outcome is likely aided and abetted by significant levels of industry and firm wage differentials. Wage dispersion thus makes the prospect of job loss even riskier for workers. Consequently, it will lead them to demand greater levels of job protection.

Firm and industry wage differentials have been repeatedly demonstrated empirically[74] and present a problem for standard, market-clearing models of the labor market that would predict "one price" for identical labor. There are many reasons that wages might disperse around a hypothetical "normal" wage. The efficiency wage and job-matching theories examined in Part I each provide one answer. A crucial element in either version is firm heterogeneity, or differences

72. CAHUC & ZYLBERBERG, *supra* note 48, at 295.

73. Markus Gangl, *Scar Effects of Unemployment: An Assessment of Institutional Complementarities*, 71 AM. SOC. REV. 986, 987-88 (2006).

74. *See* William T. Dickens & Lawrence F. Katz, *Inter-Industry Wage Differences and Industry Characteristics*, *in* UNEMPLOYMENT AND THE STRUCTURE OF LABOR MARKETS 48, 83-84 (Kevin Lang & Jonathan S. Leonard eds., 1987); Sumner H. Slichter, *Notes on the Structure of Wages*, 32 REV. ECON. & STAT. 80, 80-84 (1950). *See also* Alan B. Krueger & Lawrence H. Summers, *Efficiency Wages and the Inter-Industry Wage Structure*, 56 ECONOMETRICA 259, 263-68 (1988).

across firms in terms of productivity because of, for example, different economies of scale or different amounts of capital investment. Under the efficiency-wage theory, a shirking worker presents a greater potential loss of output for a more productive firm than for an identical worker in a less productive firm. For identical "supervision" technologies then, the more productive firm is willing to pay the worker more to induce greater effort.[75] A similar reasoning holds for the job-matching theory.[76] Job vacancies are more costly to a productive firm than to a less productive one. More productive employers will therefore pay higher wages to ensure a longer queue of job seekers, and therefore a smaller chance of a vacancy.

Decentralized collective bargaining is another source of wage dispersion.[77] Ultimately, the source of this dispersion is the differences in productivities between firms, just as they were the source of wage dispersion in the efficiency-wage and job-matching theories.[78] Quite simply, when employers and unions bargain over the firm's (or municipality's) revenues, unions will be able to achieve higher wages because of greater productivity, or what amounts to nearly the same thing, because of lower employment costs per unit of output. Thus, because of collective bargaining, we should expect wages to be higher in firms with more productive technology, even for labor that, by itself, is equally productive. Although slightly more complicated in the public sector, we should expect the same result. For identical budgets (which are influenced by the factors previously discussed), facilities or enterprises with greater productivity should result in higher wages for employees under collective bargaining.

As a result, we should expect decentralized collective bargaining, whether within the public and private sectors respectively, or between the public and private sectors, to increase wage dispersion. Wage dispersion, in turn, makes job loss even more risky for workers and should increase their demand for employment protection measures relative to wage increases.

2. *Decentralized Bargaining and the Hold-Up Problem*

A second implication of decentralized wage bargaining is its effect on what economists call the "hold-up" problem.[79] Consider an employer contemplating a costly fixed investment in machinery or computer technology that will significantly increase productivity (or reduce unit labor costs) in the workplace. For a private employer, this represents the prospect of higher profits; for a public employer, this may represent the potential to deliver the same or more services at lower cost, thereby saving the tax payer money. By increasing productivity, it

75. Krueger & Summers, *supra* note 74, at 280.

76. *See* Montgomery, *supra* note 26, at 169-70.

77. Karl Ove Moene & Michael Wallerstein, *Pay Inequality*, 15 J. LAB. ECON. 403, 405 (1997).

78. *Id.* at 427.

79. Amaia Altuzarra & Felipe Serrano, *Firms' Innovation Activity and Numerical Flexibility*, 63 INDUS. & LAB. REL. REV. 327, 329 (2010). *See generally* Paul A. Grout, *Investment and Wages in the Absence of Binding Contracts: A Nash Bargaining Approach*, 52 ECONOMETRICA 449 (1984).

will also present the union with the opportunity to significantly increase wages. However, if the resulting wage increases are very large, this may make the investment less attractive to the employer. If most of the productivity gains are absorbed by wage increases, profit or cost-saving gains will be much less. They may even make the investment economically infeasible if, for example, the wage-reduced profit gain becomes less than the cost of the investment itself.

Perversely, this hold-up problem has the effect of lowering wages. If employer's anticipates that any investment gains will be lost in wage increases, managers will not make such productivity-enhancing commitments. Yet without productivity improvements, there is also no basis for increases in wages. Of course, unions would like firms to make such investments in order to take advantage of increased productivity. But without some device to address the hold-up problem, they cannot credibly commit to limiting their wage demands once irreversible investments have been made.

There are a number of ways to address the hold-up problem in collective bargaining. Foremost among them is by making collective agreements legally enforceable, particularly when they are accompanied by a promise not to strike during the term of the agreement.[80] Under such an agreement, employers have some certainty about their wage costs during the contract term and some confidence that the union will not be able to threaten to stop production to secure wage gains. By providing some certainty about the future, such measures reduce the hold-up problem.

Another, and possibly even more effective, way of reducing the hold-up problem is to centralize bargaining. When unions and employers bargain as groups, and wages are uniform across employers, wages become independent of any particular firm's productivity and investment. In fact, by *raising* wages on less productive employers, relative to what they would pay in a decentralized environment, centralized bargaining may *increase* employer's incentives to invest. In other words, centralized bargaining acts as a subsidy to innovators and a tax on laggards, while decentralized bargaining acts as a tax on innovators and a subsidy to laggards.

Therefore, in addition to increasing wage dispersion, decentralized bargaining worsens the hold-up problem, which reduces productivity and consequently wages. More to the point, the hold-up problem is an important reason limiting wage growth in the public sector relative to the private sector, precisely because of, rather than in spite of, the public sector's greater union density.

D. Adverse Selection

Over the past few decades, union density in the private sector has declined, while union density in the public sector has roughly increased.[81] As a result, the union membership rate among public sector workers stood at 36.2% in 2010,

80. *See generally* Grout, *supra* note 79.

81. *See* Michael Wallace et al., *Union Organizing Effort and Success in the U.S., 1948-2004*, 27 RES. SOC. STRATIFICATION & MOBILITY 13, 13 (2009).

which was substantially higher than the union membership rate among private sector workers, which was 6.9% in 2010.[82] If only local government workers are considered, the membership rate among the public sector was even higher, at 42.3%.[83] These disparities imply that labor markets are working very differently between public and private sectors. Indeed, the question arises whether the substantial difference in union membership rates could create an adverse selection problem, similar to the one described above. Or even more interesting, are there peculiarities of the public sector itself that cause a disproportionate number of workers with greater preferences for job security to seek employment there? To the extent that this occurs we would expect that the tradeoff between wage increases and employment security to be struck even further in the direction of security. This subsection discusses the reasons why this might be the case.

First, the government as an employer may be particularly well placed to ensure workers against risk. For one, governments are relatively large employers and have the resources to pool risk across a larger number of employees.[84] In addition, the public sector may be slightly insulated, if not totally immune, to business cycle behavior in the economy.[85] If this is the case, then we would expect workers with different risk preferences to sort themselves into public and private sectors. The private sector might offer higher wages to relatively risk-neutral workers to compensate them for the uncertainty of future product demand and employment. The public sector could save on wage costs and use its relative stability to attract more risk-averse workers. Even if collective bargaining then increases wages in the public sector, these increases will be less than in the case of equal proportions of risk-averse workers across sectors.

A second feature of the public sector that might lead to adverse selection is its lower productivity. As shown in the analysis of Part II.B., sheltered public-sector production may be systematically lower than in the private sector. And as shown in the previous subsection, Part II.C., wages will diverge depending on the productivity characteristics of firms and industries. For these reasons, we can also expect risk-neutral workers to be drawn to higher-wage, higher-productivity firms and sectors, and risk-averse workers to be drawn to lower-wage, lower-productivity firms and sectors. The reason for this is that lower wages act as a kind of insurance against job loss.[86] Recall that risk-averse workers are willing to sacrifice higher wages for more certainty. Low-wage occupations fulfill this condition, albeit in an inefficient way.[87] High-wage jobs attract more job applicants, creating longer "queues" for these jobs. Yet with longer queues—

82. News Release, Union Members—2010, U.S. Dep't of Labor, Bureau of Labor Statistics 1 (Jan. 21, 2011), *available at* http://www.bls.gov/news.release/archives/union2_01212011.pdf.

83. *Id.*

84. William E. Even & David A. Macpherson, *Employer Size and Compensation: The Role of Worker Characteristics*, 26 APPLIED ECON. 897, 906 (1994).

85. Steven G. Allen, *Unions and Job Security in the Public Sector*, *in* WHEN PUBLIC SECTOR WORKERS UNIONIZE 271, 278 (Richard B. Freeman & Casey Ichniowski eds., 1988).

86. Daron Acemoglu & Robert Shimer, *Efficient Unemployment Insurance*, 107 J. POL. ECON. 893, 901 (1999) [hereinafter Acemoglu & Shimer, *Efficient UI*].

87. *Id.* at 906.

which is to say, more competition for the job vacancy among workers—the risk of getting hired is lower than in a lower-wage job. Thus, risk-averse workers discount higher wages and prefer the greater likelihood of finding employment in a lower-wage industry. Thus lower productivity in the public sector can account for why a higher proportion of risk-averse workers might be attracted to the public sector, and therefore why collective bargaining in the public sector may be tilted toward security even more than compensation, than in the baseline model.

III. PROPOSALS FOR REFORM

There are therefore several perfectly plausible reasons why the compensation of public-sector workers might be lower than for comparable private-sector employees, even despite the much higher prevalence of collective bargaining in the public sector. First, the monopolistic and service-oriented nature of government production may result in lower productivity and therefore lower collectively-bargained wages. Second, decentralized bargaining in the public sector may lead workers to emphasize job security concerns over wage increases and, through hold-up effects, exacerbate the slow growth of productivity in the public sector. Third, and perhaps most convincingly, the peculiarities of government production may attract a disproportionate number of workers with strong risk-averse preferences, who will again emphasize job security in contrast to wage increases in collective-bargaining proposals. Yet even if for these reasons public-sector wages lag behind private-sector wages, the emphasis on job security in public-sector bargaining may impose its own, less visible, costs in the form of lower productivity. The next question is, what should be done?

One possible response to the problems posed by the costs of employment security and collective bargaining is to do away with unions altogether. This has been, more or less, the consistent response by a number of observers over the last few decades. The legislative moves to curtail or eliminate collective bargaining in Ohio and Wisconsin are, in many respects, the culmination of such thinking. Nevertheless, it would be unwise to eliminate collective bargaining in the public sector. Whatever problems are created by public sector bargaining, abolishing it will only exacerbate existing problems or create new ones. The debate should not be between whether we want unions or not, but rather, what kind of unions we want. This Part will first discuss the dangers of eliminating public-sector bargaining, and then discuss the kinds of changes that could be made to maximize the good things unions do and minimize the bad things.

A. Downsides of Eliminating Public-Sector Bargaining

1. *Increasing Income Inequality*

Growing economic inequality presents a significant challenge to the United States. Income inequality is now higher than at any point in the last 70 years.[88] For several years, economists interpreted this growing inequality as a consequence of what they called "skill-biased technical change" (SBTC).[89] Namely, changes in technology (the advent of computers being the most favored example) create greater demand for high-skilled workers and reduce demand for low-skilled workers.[90] More recent research raises significant doubts about the ability of this "villainless" and exogenous SBTC story to fully explain increasing inequality. For instance, when one examines the pattern of job creation, one finds a distinctive, U-shaped pattern.[91] The American economy has created many "good," high-paying jobs, many "bad," low-paying jobs, and very few jobs in between.[92] Since this evidence shows that business has revealed a distinctive and growing, rather than declining, demand for low-wage workers, this throws into question the simple SBTC story.

Economists have since revised their story, from one of SBTC to one of "job polarization."[93] In this revised version, technological change still plays a big part. Rather than new, computerized technologies shifting demand for different skills among workers, however, these technological changes eliminate and simplify "middle-level" tasks, generating demand for both high and low-skilled workers, but reducing demand for mid-level skilled workers.[94] But it is even possible to question how much job polarization itself is the cause of rising income inequality. Crucial to this question is how income is distributed among top wage earners.[95] As it turns out, when sufficiently fine-grained data is examined, growth in income distribution is surprisingly concentrated at the top—too concentrated to be the result of the changing distribution of jobs.[96] It is even

88. Thomas Piketty & Emmanuel Saez, *Income Inequality in the United States, 1913-1998*, 118 Q.J. ECON. 1, 11 (2003).

89. *See* Lawrence F. Katz & David H. Autor, *Changes in the Wage Structure and Earnings Inequality*, *in* 3A HANDBOOK OF LABOR ECONOMICS 1463, 1469 (Orley Ashenfelter & David Card eds., 1999).

90. *Id.*

91. *See* Erik Olin Wright & Rachel E. Dwyer, *The Patterns of Job Expansions in the USA: A Comparison of the 1960s and 1990s*, 1 SOCIO-ECON. REV. 289, 304 (2003). *See also* Maarten Goos & Alan Manning, *Lousy and Lovely Jobs: The Rising Polarization of Work in Britain*, 89 REV. ECON. & STAT. 118, 121 & fig.1 (2007) (finding evidence for growth in low quality and high quality jobs, but contraction for middle quality jobs).

92. *See* Wright & Dwyer, *supra* note 91, at 289.

93. David H. Autor et al., *Trends in U.S. Wage Inequality: Revising the Revisionists*, 90 REV. ECON. & STAT. 300, 301 (2008).

94. *Id.*

95. *See* Piketty & Saez, *supra* note 88, at 33-34.

96. *Id.* at 34-35.

possible to question how tightly-linked skills—and education more generally—are to economic rewards in the labor market.[97]

What problems do growing economic inequality present? Is increasing economic inequality wrong? We might question inequality on its own terms, as a matter of justice. The political philosopher John Rawls argued that, to the extent that an unequal distribution of rewards was the result of luck, rather than choice, such a distribution was morally arbitrary.[98] Since much economic inequality can be explained by such factors as accidents of birth, inequality that is the consequence of such factors is unjust.[99] It can also be argued that inequality is procedurally as well as substantively unjust. Greater inequality results in a disproportionate influence of the rich on politics and public-policy making, to the detriment of the less well off. Inequality therefore undermines the practice of democracy and vitiates the core constitutional foundation of popular sovereignty.[100] It is also possible that inequality is inefficient—inequality is not just bad for the worse off, it may be bad for everyone.[101]

Eliminating public-sector collective bargaining will only worsen these trends toward growing inequality. To the extent that reductions in public-sector workers' compensation will be used to finance tax cuts or balance budgets, the effect will mostly benefit the relatively well off. Like other government interventions in the labor market—such as minimum wages, social security, or unemployment insurance—public-sector collective bargaining, and indeed public-sector employment in general, provides a counterbalance to downward wage pressure in the private labor market.[102] This occurs directly, inasmuch as all collective bargaining tends to reduce earnings inequality. There is an indirect effect as well: to the extent that public-sector employment provides an alternative

97. *See generally, e.g.*, EDWARD N. WOLFF, DOES EDUCATION REALLY HELP? SKILL, WORK, AND INEQUALITY (2006) (finding evidence that contradicts the argument that greater educational attainment will reduce income inequality, including findings that wages have fallen even though workers' skill levels and educational attainment have increased, that changes in productivity do not appear strongly correlated with changes in skills or education, and that as educational opportunities have improved for a broader segment of the U.S. population, income inequality has nevertheless increased).

98. *See* JOHN RAWLS, A THEORY OF JUSTICE 14-15 (2005) (arguing that a just distribution of social and economic advantages should nullify "the accidents of natural endowment and the contingencies of social circumstance" since they "seem arbitrary from a moral point of view").

99. UNEQUAL CHANCES: FAMILY BACKGROUND AND ECONOMIC SUCCESS (Samuel Bowles et al. eds., 2008) (finding evidence that a person's economic success is strongly correlated with the economic success of his or her parents).

100. *See generally* AKHIL REED AMAR, AMERICA'S CONSTITUTION: A BIOGRAPHY (2006) (explaining the importance of popular sovereignty in the ratification and interpretation of the Constitution).

101. Alberto Alesina & Dani Rodrik, *Distributive Politics and Economic Growth*, 109 Q.J. ECON. 465, 467 (1994).

102. *See* Torben Iversen & Anne Wren, *Equality, Employment, and Budgetary Restraint: The Trilemma of the Service Economy*, 50 WORLD POL. 507, 512-13 (1998) (describing public-sector employment as one way "government can assume the responsibility for employing workers at relatively high wages").

source of "good" jobs for workers, the private sector is forced to raise compensation in order to compete.

Ironically, critiques that allege the excessive pay of public-sector workers are implicitly drawing on a concern about inequality. Yet, growing inequality among all employees presents a far graver concern than whether public-sector workers are getting paid more than their private-sector counterparts. Indeed, to the extent that such comparisons invite concerns about the fairness of rewards in the labor market, they are largely misplaced. Inequality is a problem, but there are much larger and more important sources for inequality than those that exist between public- and private-sector workers. Such comparisons engender enmity where comity should exist.

2. *Efficient Functioning of Labor Markets*

To the extent that collective bargaining creates inefficiencies in the labor market or employment relationship, this need not necessarily imply that all collective bargaining is inefficient. Employment protection may be a blunt instrument to encourage workers to invest in special skills or assets, but removing collective bargaining, and the protection it provides, while leaving nothing in its place, scarcely makes such dilemmas better. Without some form of security or insurance to protect against job loss or the redundancy of firm-specific skills, worker will have little incentive to make such risky investments of time and energy. The same applies to risk in the labor market more generally. To the extent that matching frictions and efficiency wages are independent sources of wage dispersion and labor-market risk, the elimination of collective bargaining does nothing to address them.

Collective bargaining can in fact address these problems in positive ways. This issue is less whether collective bargaining *per se* is good or bad, efficient or inefficient, but what *kind* of collective bargaining works best.[103]

B. *Reforming Public-Sector Labor Law and Bargaining*

1. *Greater Centralization in Collective Bargaining*

One potential solution to a number of problems in public-sector bargaining might be greater centralization: both across geographic and occupational boundaries within the public sector and across the public-private boundary. Doing so might have four salutary effects by reducing: (1) industry and firm wage differentials; (2) the "insider" politics of public-sector unionism; (3) the hold-up problem; and (4) the adverse-selection problem.

Greater coordination and centralization in wage setting among unions has been shown to reduce wage inequality.[104] Since greater wage disparities make

103. *See* Justus Haucap & Christian Wey, *Unionisation Structures and Innovation Incentives*, 114 ECON. J. C149, C149 (2004) (describing the view that "it is not the mere existence of unions that is decisive for firms' performance but rather the specific mode of labour market organisation").

workers more apprehensive about job loss, reducing them should make workers more willing to accept more labor-market risk, especially where doing so may also bring greater rewards in productivity.[105] I am unaware whether workers are more likely to move within the public (or private) sector following a job loss, or between sectors. Depending on the answer to that question, greater coordination should take place within or between the sectors where workers are most likely to move.

More generally, wage centralization in collective bargaining could also lead public-sector unions away from intensive, localist politics that favor "insider" strategies, of which excessive levels of employment protection is a chief example. When unions are more focused on improving wage conditions *throughout* the labor market, they will lose their interest in protecting *particular* jobs and enterprises. For example, if the public interest requires the closing of a particular municipal department, facility, or service, workers and unions will be less concerned about waging a bargaining or political battle to defend those jobs, because workers will know that quality employment is plentiful. More generally, we might refer to Mancur Olson's argument that "encompassing organizations" will tend to reduce the level of public bads.[106] Small and fractured interest groups will be powerless to impose high levels of negative externalities on the public. Medium-sized groups, on the other hand, will have the ability and the desire to advance their interest at the expense of the public. However, when groups become large and encompassing enough that they effectively become the public, they will fully bear the negative externalities their activities create and will therefore tend to promote a more efficient policy.

As described in Part II.C., decentralized bargaining tends to reduce the incentives of employers, public or private, to invest in productivity-enhancing and cost-saving technology. More centralization in wage bargaining will counteract this effect. Greater coordination, especially between public and private, could also ease the adverse-selection problem.[107] Bargaining centralization will tend to standardize working conditions between the two sectors, reducing any disproportions in the prevalence of risk-averse workers.[108]

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104. *See generally* Michael Wallerstein, *Wage-Setting Institutions and Pay Inequality in Advanced Industrial Societies*, 43 AM. J. POL. SCI. 649, 649 (1999) (reporting evidence that the "most important factor in explaining pay dispersion is the level [i.e., centralization] of wage-setting," even when controlling for other factors such as the political persuasion of the government, government size, international trade openness, the supply of highly educated workers, and other labor market variables).

105. *See* Margarita Estevez-Abe et al., *Social Protection and the Formation of Skills: A Reinterpretation of the Welfare State*, *in* VARIETIES OF CAPITALISM: THE INSTITUTIONAL FOUNDATIONS OF COMPARATIVE ADVANTAGE 145, 153-55 (Peter A. Hall & David Soskice eds., 2001).

106. *See generally* MANCUR OLSON, THE RISE AND DECLINE OF NATIONS (1982).

107. *See* Wallerstein, *supra* note 104, at 655-58.

108. *Id.*

2. *Unemployment Insurance*

In addition to greater coordination in wage bargaining, policy should seek alternative forms of employment security. Chief among these is unemployment insurance. By replacing a portion of a worker's wages lost from unemployment, unemployment insurance reduces the costs and risk of job loss.[109] However, unemployment insurance currently replaces on average only about 36% of a worker's former wages.[110] At this level, replacement rates only weakly reduce the income dislocations experienced by unemployed workers. The current U.S. replacement rate is also significantly lower than most other developed countries.[111] In order to make unemployment insurance an effective employment security device, and to reduce workers' demand for employment protection rules, the U.S. replacement rate should be significantly increased.

Increasing the replacement rate in the United States would require additional tax revenues, a proposal which is likely to encounter fierce political resistance. Yet improved unemployment insurance could pay for itself. First, unemployment insurance can provide security in the labor market, without the productivity reducing characteristics of employment protection rules. Second, better unemployment insurance can encourage workers to search and apply for higher-wage, higher productivity jobs, reducing the "low-wage insurance" effect described in Part II.C.[112] Since this will likewise encourage employers to create higher-wage, higher-productivity jobs, the rise in economic activity can offset an increase in taxes required to pay for improved replacement rates.[113] Third, unemployment insurance can substitute for whatever efficiency-enhancing attributes that employment protection rules are believed to have. Chief among these are the incentives such rules give to employees to invest in firm-specific skills.[114] Unemployment insurance does not necessarily remove these incentives, even though it does not keep workers tied to their particular jobs. If workers invest in specialized skills in the expectation of *income* gains, rather than because of an attachment to any particular job, then employment insurance benefits that replace such income are sufficient to maintain the incentives currently derived from employment protection measures.[115]

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109. *See* Daron Acemoglu & Robert Shimer, *Productivity Gains from Unemployment Insurance*, 44 EURO. ECON. REV. 1195, 1197 (2000) [hereinafter Acemoglu & Shimer, *Productivity Gains*].

110. ORG. FOR ECON. CO-OPERATION & DEV. (OECD), OECD EMPLOYMENT OUTLOOK 2006: BOOSTING JOBS AND INCOMES 60 tbl.3.2 (2006), http://www.oecd.org/dataoecd/28/9/36965805.pdf (Net Replacement Rates and Employment Insurance Benefit Duration in 26 OECD Countries, 2004).

111. *See id.*

112. *See* Acemoglu & Shimer, *Productivity Gains*, *supra* note 109, at 1197.

113. Acemoglu & Shimer, *Efficient UI*, *supra* note 86, at 23.

114. Estevez-Abe et al., *supra* note 105, at 150.

115. *See* Acemoglu & Shimer, *Productivity Gains*, *supra* note 109, at 1201-02.

3. *Job Training and Retraining*

It can be difficult to find work following a job loss, and this difficulty is compounded when the worker's skills at the previous job were specific and perhaps related to an industry in decline. Acquiring new skills is costly, time consuming, and of sometimes limited value if not obtained while on the job.[116] These painful aspects of job loss can be mitigated by policy programs that subsidize and create job-training opportunities for unemployed workers. Unions and employers can play an important role here, since both are more aware of job openings and requirements than are public officials. Again, such programs are costly, but by improving the match between workers and jobs, they can enhance economic efficiency by speeding the creation of newer, more productive jobs, and reduce workers' demands for job protection measures.

Such programs also fit well and naturally with unemployment insurance programs. In particular, there are two reasons that such job training programs can speed the rate of exit of workers from unemployment, and thereby reduce the tax burden of unemployment insurance programs. First, by broadening and enriching the skill set of unemployed workers, they enhance job opportunities and the chance of finding new work.[117] Second, making participation in a job training program a condition of the receipt of unemployment benefits encourages workers who may not particularly need the training to find employment.[118] Job training programs can be an efficient method of reducing unemployment and should be encouraged in any reform of the current unemployment system.

4. *Privatization*

Public-sector monopolies may lead to larger wage demands from unions and could also limit productivity increases. Yet privatization has become an increasingly important phenomenon in the public sector.[119] What role should privatization play in public-sector labor law reform? Privatization is often promoted as a way of reducing the cost to the taxpaying public.[120] This is a laudable objective, but if one goal of maintaining a public-sector workforce is to create a bulwark against income inequality, these two goals may come into tension. This will be particularly true when the cost savings of privatization are gained solely through the reduction of wages and living standards for public-sector workers. Because this is a typical outcome of privatization, labor unions

116. Estevez-Abe et al., *supra* note 105, at 150.

117. Per Kongshøj Madsen, *The Danish Model of "Flexicurity": Experiences and Lessons*, 10 TRANSFER: EUR. REV. LAB. & RES. 187, 197 (2004).

118. *Id. See also* Dan A. Black et al., *Is the Threat of Reemployment Services More Effective than the Services Themselves? Evidence from Random Assignment in the UI System*, 93 AM. ECON. REV. 1313, 1313 (2003).

119. *See generally* Bennett & DiLorenzo, *supra* note 57.

120. *Id.* at 34.

tend to oppose such measures.[121] Indeed, it would seem that privatization and unionism stand in irreconcilable tension with one another.

Yet public-sector workers have an interest in productivity gains, from which they can benefit through higher wages. If competition can have some moderating effect on wage demands, this competition from privatization may serve legitimate purposes in increasing employment and reducing hold-up problems. In principle, it should be possible to have privatization without discouraging unionization. Governments should make clear that they will not award contracts to firms that use anti-union employment tactics; the federal government has adopted such measures.[122] This will encourage firms contracting with the government to find cost-saving technologies and methods other than simply though wage and benefit cuts. To emphasize the previous claim, firms will also be encouraged to innovate in this way if a greater prevalence of wage centralization reduces the hold-up problem of union bargaining. While privatization and unionism currently appear to be at odds, this need not be the case.

CONCLUSION

Several battleground states have recently attempted to curtail or eliminate longstanding collective-bargaining rights for public-sector workers. Debates surrounding these legislative maneuvers have made widely diverging claims about whether and how much public-sector workers should be compensated compared to their counterparts in the private sector. This article has sought to add some analytical focus to the debate by considering an explicit model of collective bargaining and by identifying specific features of the public sector that might influence the outcome. The conclusion of this analysis is that even with a higher prevalence of collective bargaining in the public sector, a number of factors militate against excessively divergent levels of compensation between public and private sectors. Among these are the tradeoff between wages and employment security, lower productivity in the public sector, and wage dispersion within public, and between public and private, sectors. On the other hand, the political involvement of unions and the weaker degree of competition in the public sector suggest compensation may indeed be higher. It is hoped that further research attempts to explicitly measure these different factors will yield a more precise understanding of the causes and magnitudes of differences between public- and private-sector compensation. More speculatively, even if public-sector compensation is not excessive due to the focus there on employment security, such a tradeoff may put significant costs on the public. This article has also considered ways that public-sector unionism can be reformed, to help unions achieve their egalitarian objectives at minimum public expense, a goal to be encouraged.

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121. *Id.*

122. *See* Exec. Order No. 13,496, 29 C.F.R. 471 (2009) (requiring federal contractors to post notices of employees' federal labor-law rights); Exec. Order No. 13,494, 74 Fed. Reg. 6101 (2009) (prohibiting the government from paying costs associated with persuading employees to exercise or not exercise their rights to organize and bargain collectively).